



10057119.030502 #3

Docket No. 0801

- 5 worksheet calculation data unit
- 6 layout conversion processing unit
- 7 display layout defining data unit
- 8 display apparatus
- 9 printer
- 10 memory device
- 11 layout setting unit
- 12 bus

What is claimed is:

- (1) A process of inputting/outputting [a display table] derived from worksheet cells having formulas and display attributes by repeatedly developing worksheet column cells into rows of the display table based on previously-set layout information in display layout defining data [file] while maintaining the original formulas and attributes.
- (2) A process of outputting a journal [of a display table] derived from worksheet cells having formulas and display attributes by a printer by steps comprising:
  - adjusting header information in display layout defining data based on a command-entered paper size, printing orientation, and margins;
  - repeatedly developing the worksheet's column cells into rows in a printable region according to the layout information in the display layout defining data [file];
  - inserting blank rows, when the developed region is narrower than the layout information's printable region by executing a blank row-filling page set-up routine; and
  - arranging a footer defined by the display layout defining data.
- (3) A process of inputting/outputting a display table derived from a worksheet as set forth in Claim 1 by changing the display layout defining data or display layout defining files, while maintaining the original formulas and attributes;

wherein the display layout defining data are created in a data table streamed in files comprising:

- [display] layout information for defining worksheet's column cell addresses, display and print cell addresses, and display attributes; and
- header and footer information for defining print page settings.

- (4) A process of outputting a journal of the display table by a printer as set forth in Claim 2 by changing the display layout defining data or display layout defining files, while maintaining the original formulas and attributes;

wherein the display layout defining data are created in a data table streamed in files comprising:

- [display] layout information for defining worksheet's column cell addresses, display and print cell addresses, and display attributes; and
- header and footer information for defining print page settings.

- (5) A process of inputting/outputting display data derived from a worksheet as set forth in Claim 1 by entering a command into a plurality of display data cells for changing column width, row height, and cells' display attributes;

wherein the display layout defining data default values are as follows:

- column width defined by display layout defining data and
- row height defined by layout information in display layout defining data.

- (6) A process of outputting a journal [of the display table] by a printer as set forth in Claim 2 by entering a command into a plurality of display data cells for changing column width, row height, and cells' display attributes;

wherein the display layout defining data default values are as follows:

- column width defined by display layout defining data and
- row height defined by layout information in display layout defining data.